

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P886053

Luminaire Tested: ML104LSFLD2W1E-TIR1D55WFL-TL1SDMW-200LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P886053
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-148)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFLD2W1E-TIR1D55WFL-TL1SDMW-200LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE WHITE TRIM
Light Source: (1) D2W LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 239.5 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')

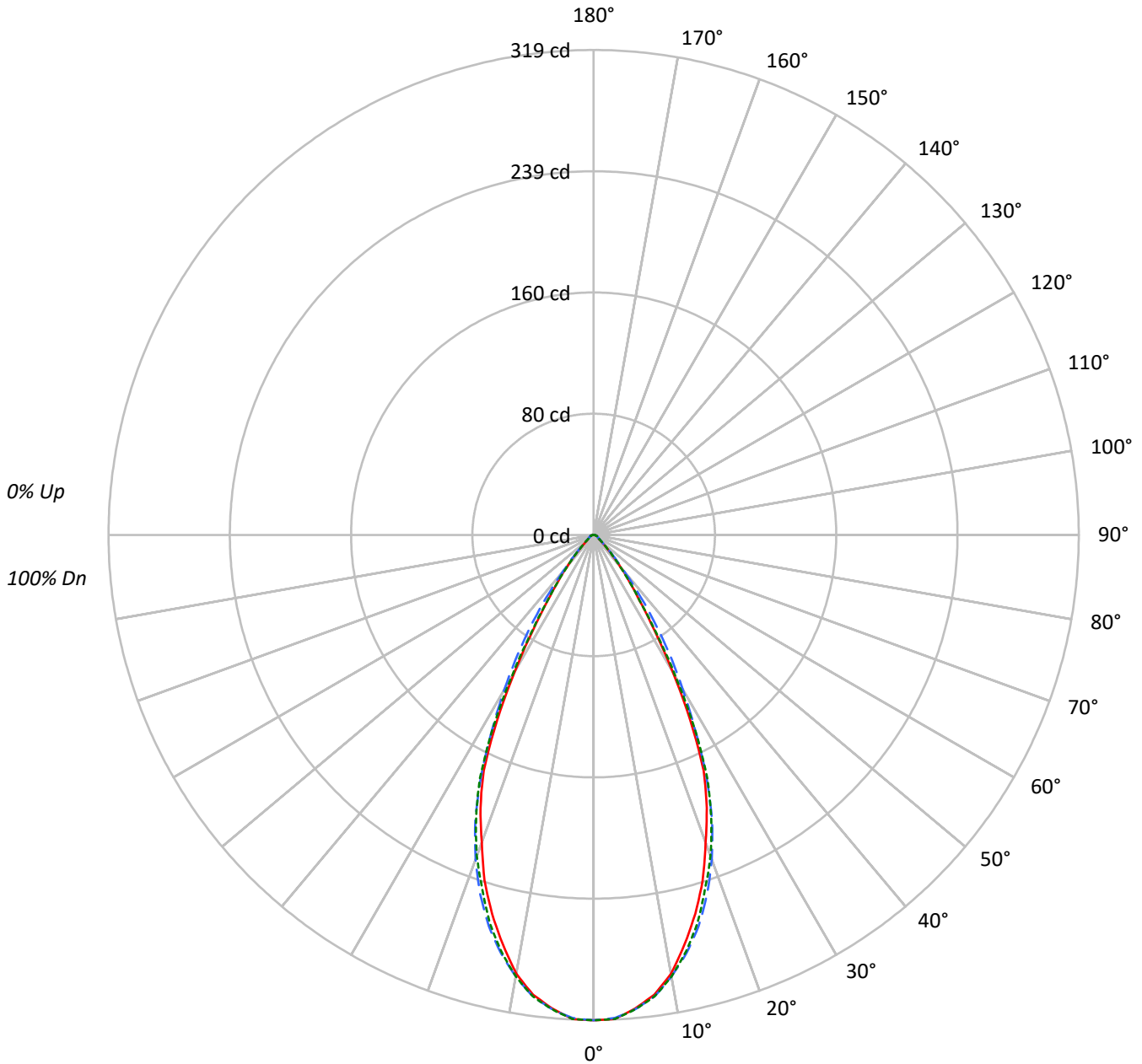
CIE Type: Direct

Input Watts (W): 3.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81								
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76								
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71								
6	88	80	74	70	87	79	73	69	77	73	69	76	72	68	75	71	68	67								
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63								
8	80	71	65	61	79	71	65	61	69	64	61	68	64	61	68	63	60	59								
9	77	67	62	58	76	67	61	58	66	61	57	65	61	57	64	60	57	56								
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	494920	494920	494920
5°	486541	487475	487475
10°	461318	464151	464151
15°	414011	427491	423639
20°	354971	374600	370641
25°	292795	299978	303057
30°	185066	209586	193657
35°	98963	130563	100098
40°	55239	62523	53013
45°	26085	30031	27401
50°	14227	15674	15674
55°	11350	11350	11350
60°	9300	9300	9300
65°	8802	11003	8802
70°	10877	10877	10877
75°	10780	10780	10780
80°	10711	10711	10711
85°	10671	10671	10671

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 30031 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	12.3
10°-20°	73.2	30.5
20°-30°	78.0	32.6
30°-40°	39.0	16.3
40°-50°	11.1	4.6
50°-60°	3.9	1.6
60°-70°	2.7	1.1
70°-80°	1.7	0.7
80°-90°	0.5	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	180.5	75.4
0°-40°	219.5	91.7
0°-60°	234.5	97.9
0°-90°	239.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	239.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	319	319	319	319	319	
5°	313	313	313	313	313	29
15°	258	261	266	265	264	72
25°	171	173	175	177	177	75
35°	52	58	69	58	53	35
45°	12	12	14	13	12	10
55°	4	4	4	4	4	4
65°	2	3	3	3	2	3
75°	2	2	2	2	2	2
85°	1	1	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	319.3	319.3	319.3	319.3	319.3
2.5°	318.7	318.1	318.1	318.7	318.7
5°	312.7	313.3	313.3	313.3	313.3
7.5°	305.0	305.6	306.2	306.8	306.2
10°	293.1	293.7	294.9	296.1	294.9
12.5°	275.9	278.8	281.8	281.2	280.6
15°	258.0	261.0	266.4	264.6	264.0
17.5°	238.4	242.0	247.9	247.3	243.8
20°	215.2	220.6	227.1	225.3	224.7
22.5°	194.4	198.6	203.3	203.9	202.1
25°	171.2	173.0	175.4	177.2	177.2
27.5°	137.3	142.7	144.5	146.3	143.9
30°	103.4	110.6	117.1	115.3	108.2
32.5°	73.7	82.6	92.2	85.6	76.7
35°	52.3	57.7	69.0	58.3	52.9
37.5°	38.1	39.8	47.6	40.4	38.1
40°	27.3	27.9	30.9	27.9	26.2
42.5°	18.4	19.6	20.8	19.6	18.4
45°	11.9	12.5	13.7	13.1	12.5
47.5°	7.7	8.3	8.9	8.9	8.9
50°	5.9	5.9	6.5	7.1	6.5
52.5°	4.8	4.8	5.4	5.4	4.8
55°	4.2	4.2	4.2	4.2	4.2
57.5°	3.6	3.6	3.6	3.6	3.6
60°	3.0	3.0	3.0	3.0	3.0
62.5°	3.0	3.0	3.0	3.0	3.0
65°	2.4	3.0	3.0	3.0	2.4
67.5°	2.4	2.4	2.4	2.4	2.4
70°	2.4	2.4	2.4	2.4	2.4
72.5°	1.8	1.8	1.8	1.8	1.8
75°	1.8	1.8	1.8	1.8	1.8
77.5°	1.2	1.2	1.2	1.2	1.2
80°	1.2	1.2	1.2	1.2	1.2
82.5°	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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